

Claim Listing

1-27. (canceled)

28. (previously presented) The compound, salt, stereoisomer, or tautomer of claim 90, wherein the compound is selected from the group consisting of:

N-{[3-(1-benzyl-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl)-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl]methyl}methanesulfonamide;

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]methanesulfonamide;

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]ethanesulfonamide;

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]propane-1-sulfonamide;

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]propane-2-sulfonamide;

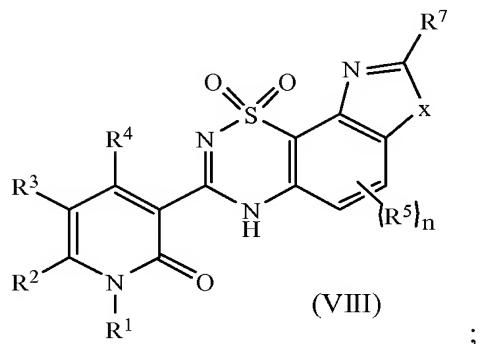
N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]benzenesulfonamide; and

N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl]-1-phenylmethanesulfonamide.

29-51. (canceled)

52. (previously presented) A compound or a pharmaceutically acceptable salt form, stereoisomer, or tautomer thereof, wherein:

the compound corresponds in structure to formula (VIII):



X is NH, N(alkyl), O, or S;

R^1 is selected from the group consisting of hydrogen, alkenyl, alkoxyalkyl, alkoxy carbonylalkyl, alkyl, alkyl carbonylalkyl, alkylsulfanylalkyl, alkylsulfinylalkyl, alkylsulfonylalkyl, alkynyl, aryl, arylalkenyl, arylalkyl, arylsulfanylalkyl, arylsulfonylalkyl, carboxyalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, (cycloalkyl)alkenyl, (cycloalkyl)alkyl, formylalkyl, haloalkoxyalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heteroarylsulfonylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkyl, nitroalkyl, R_aR_bN- , $R_aR_bNalkyl-$, $R_aR_bNC(O)alkyl-$, $R_aR_bNC(O)Oalkyl-$, $R_aR_bNC(O)NR_calkyl-$, $R_fR_gC=N-$, and R_kO- , wherein R^1 is substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_e), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_e), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_e;

R^2 and R^3 are independently selected from the group consisting of hydrogen, alkenyl, alkynyl, alkoxyalkyl, alkoxy carbonyl, alkyl, aryl, arylalkyl, heteroaryl, heterocycle, heteroarylalkyl, cyano, halo, -N(R_a)(R_b), $R_aR_bNC(O)-$, -SR_a, -S(O)R_a, -S(O)₂R_a, and $R_aC(O)-$, wherein R^2 and R^3 are independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of R_a , alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), -SR_a, -S(O)R_a, -S(O)₂R_a, -OR_k, -N(R_a)(R_b), -C(O)R_a, -C(O)OR_a, and -C(O)NR_aR_b;

alternatively, R^2 and R^3 , together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl, and heterocycle, wherein said aryl, cycloalkyl, heteroaryl, and heterocycle is optionally substituted with (R⁶)_m;

R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN- , N_3- , and R_eS- , wherein R^4 is independently substituted with 0, 1, or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

R^5 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, aryl carbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN- , $R_aC(O)-$, R_aS- , $R_a(O)S-$, $R_a(O)_{2}S-$, $R_aR_bNalkyl-$, $R_a(O)SN(R_f)-$, $R_aSO_2N(R_f)-$, $R_a(O)SN(R_f)alkyl-$, $R_aSO_2N(R_f)alkyl-$, $R_aR_bNSO_2N(R_f)-$, $R_aR_bNSO_2N(R_f)alkyl-$, $R_aR_bNC(O)-$, $R_kOC(O)-$, $R_kOC(O)alkyl-$, $R_kOalkyl-$, $R_aR_bNSO_2-$, $R_aR_bNSO_2alkyl-$, $(R_bO)(R_a)P(O)O-$, and -OR_k, wherein each R^5 is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;

R^6 is independently selected at each occurrence from the group consisting of alkyl, alkenyl, alkynyl, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, heterocyclealkyl, -(alkyl)(OR_k), -(alkyl)(NR_aR_b), -SR_a, -S(O)R_a, -S(O)₂R_a, -OR_k, -N(R_a)(R_b), -C(O)R_a, -C(O)OR_a, and -C(O)NR_aR_b, wherein each R^6 is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, haloalkyl, cyano, nitro, -OR_a, -NR_aR_b, -SR_a, -SOR_a, -SO₂R_a, -C(O)OR_a, -C(O)NR_aR_b, and -NC(O)R_a;

R^7 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN-, R_aC(O)-, R_aS-, R_a(O)S-, R_a(O)₂S-, R_aR_bNalkyl-, R_a(O)SN(R_f)-, R_aSO₂N(R_f)-, R_a(O)SN(R_f)alkyl-, R_aSO₂N(R_f)alkyl-, R_aR_bNSO₂N(R_f)-, R_aR_bNSO₂N(R_f)alkyl-, R_aR_bNC(O)-, R_kOC(O)-, R_kOC(O)alkyl-, R_kOalkyl-, R_aR_bNSO₂-, R_aR_bNSO₂alkyl-, (R_bO)(R_a)P(O)O-, and -OR_k, wherein each R^7 is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;

R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, nitroalkyl, R_cR_dN-, R_cR_dNalkyl-, R_cR_dNC(O)alkyl-, R_cSO₂-, R_cSO₂alkyl-, R_cC(O)-, R_cC(O)alkyl-, R_cOC(O)-, R_cOC(O)alkyl-, R_cR_dNalkylC(O)-, R_cR_dNC(O)-, R_cR_dNC(O)Oalkyl-, and R_cR_dNC(O)N(R_e)alkyl-, wherein R_a and R_b are substituted with 0, 1, or 2 substituents selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;

alternatively, R_a and R_b, together with the nitrogen atom to which they are attached, form a three- to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -alkylSO₂NR_cR_d, -alkylC(O)NR_cR_d, -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;

R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_fR_h$, $-OR_f$, $-CO(R_f)$, $-SR_f$, $-SOR_f$, $-SO_2R_f$, $-C(O)NR_fR_h$, $-SO_2NR_fR_h$, $-C(O)OR_f$, alkenyl, alkyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, and heterocyclealkyl; wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, $-(alkyl)(OR_f)$, $-(alkyl)(NR_fR_h)$, $-SR_f$, $-S(O)R_f$, $-S(O)_2R_f$, $-OR_f$, $-N(R_f)(R_h)$, $-C(O)R_f$, $-C(O)OR_f$, $-C(O)NR_fR_h$, $-C(O)N(H)NR_fR_h$, $-N(R_e)C(O)OR_f$, $-N(R_e)SO_2NR_fR_h$, $-N(R_e)C(O)NR_fR_h$, $-alkylN(R_e)C(O)OR_f$, $-alkylN(R_e)SO_2NR_fR_h$, and $-alkylN(R_e)C(O)NR_fR_h$;

alternatively, R_c and R_d , together with the nitrogen atom to which they are attached, form a three- to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, $-(alkyl)(OR_f)$, $-(alkyl)(NR_fR_h)$, $-SR_f$, $-S(O)R_f$, $-S(O)_2R_f$, $-OR_f$, $-N(R_f)(R_h)$, $-C(O)R_f$, $-C(O)OR_f$, and $-C(O)NR_fR_h$;

R_e is selected from the group consisting of hydrogen, alkenyl, alkyl, and cycloalkyl;

R_f , R_g , and R_h , at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroaryl, and heteroarylalkyl; wherein each R_f , R_g , and R_h is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, $-OH$, $-O(alkyl)$, $-NH_2$, $-N(H)(alkyl)$, $-N(alkyl)_2$, $-S(alkyl)$, $-S(O)(alkyl)$, $-SO_2alkyl$, $-alkyl-OH$, $-alkyl-O-alkyl$, $-alkylNH_2$, $-alkylN(H)(alkyl)$, $-alkylN(alkyl)_2$, $-alkylS(alkyl)$, $-alkylS(O)(alkyl)$, $-alkylSO_2alkyl$, $-N(H)C(O)NH_2$, $-C(O)OH$, $-C(O)O(alkyl)$, $-C(O)alkyl$, $-C(O)NH_2$, $-C(O)N(H)(alkyl)$, and $-C(O)N(alkyl)_2$;

alternatively, R_f and R_g , together with the carbon atom to which they are attached, form a three- to seven-membered ring selected from the group consisting of cycloalkyl, cycloalkenyl, and heterocycle;

alternatively, R_f and R_h , together with the nitrogen atom to which they are attached, form a three- to seven-membered ring selected from the group consisting of heterocycle and heteroaryl, wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, $-OH$, $-O(alkyl)$, $-NH_2$, $-N(H)(alkyl)$, $-N(alkyl)_2$, $-S(alkyl)$, $-S(O)(alkyl)$, $-alkyl-OH$, $-alkyl-O-alkyl$, $-alkylNH_2$, $-alkylN(H)(alkyl)$,

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-alkylS(alkyl), -alkylS(O)(alkyl), -alkylSO₂alkyl, -alkylN(alkyl)₂, -N(H)C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH₂, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)alkyl, R_aS-, R_aS(O)-, R_aSO₂-, R_aSalkyl-, R_a(O)Salkyl-, R_aSO₂alkyl-, R_aOC(O)-, R_aOC(O)alkyl-, R_aC(O)-, and R_aC(O)alkyl-, wherein each R_k is substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c, and -C(O)NR_cR_d;

m is 0, 1, 2, 3, or 4; and

n is 0, 1, or 2.

53. (previously presented) The compound, salt, stereoisomer, or tautomer of claim 52, wherein R² and R³, together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl and heterocycle, wherein said aryl, cycloalkyl, heteroaryl, and heterocycle is optionally substituted with (R⁶)_m.

54. (previously presented) The compound, salt, stereoisomer, or tautomer of claim 53, wherein R² and R³, together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of phenyl, pyridyl, pyridazinyl, pyrimidinyl, pyrazolyl, cyclopentyl, cyclohexyl, and thienyl.

55. (previously presented) The compound, salt, stereoisomer, or tautomer of claim 54, wherein R⁴ is hydroxy.

56. (currently amended) The compound, salt, stereoisomer, or tautomer of claim 55, wherein the compound is selected from the group consisting of:

~~3-(1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl)-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;~~

3-[8-(chloromethyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;

3-{3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-8-yl}propanoic acid;

3-(8-{{(2-aminoethyl)amino}methyl}-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl)-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
methyl {3-[4-hydroxy-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-8-yl} acetate;
4-hydroxy-3-(8-{{(3R)-3-hydroxypyrrolidin-1-yl}methyl}-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl)-1-(isobutylamino)quinolin-2(1H)-one;
3-[1,1-dioxido-8-(pyridinium-1-ylmethyl)-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-1-(isobutylamino)-2-oxo-1,2-dihydroquinolin-4-olate;
3-[1,1-dioxido-8-(pyrrolidin-1-ylmethyl)-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
3-[8-(3-aminophenyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
3-[8-(aminomethyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
4-hydroxy-3-[8-(hydroxymethyl)-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-1-(isobutylamino)quinolin-2(1H)-one;
3-[8-[(butylamino)methyl]-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;
~~3-[9-(butylamino)-1,1-dioxido-4H,8H-[1,4]oxazino[2,3-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(isobutylamino)quinolin-2(1H)-one;~~
4-hydroxy-1-(3-methylbutyl)-3-(8-methyl-1,1-dioxido-4H-[1,3]oxazolo[5,4-h][1,2,4]benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one;
3-[1,1-dioxido-8-(trifluoromethyl)-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
4-hydroxy-3-(8-hydroxy-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl)-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
4-hydroxy-1-(3-methylbutyl)-3-(8-methyl-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl)-1,8-naphthyridin-2(1H)-one;
3-[1,1-dioxido-8-(pentafluoroethyl)-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
3-[8-(chloromethyl)-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;
{3-[4-hydroxy-1-(3-methylbutyl)-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl]-1,1-dioxido-4,7-

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dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-8-yl} acetonitrile;
methyl {3-[4-hydroxy-1-(3-methylbutyl)-2-oxo-1,2-dihydro-1,8-naphthyridin-3-yl]-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-8-yl} acetate;
~~3-(9,9-dioxido-6H[1,2,5]thiadiazolo[3,4-h][1,2,4]benzothiadiazin-7-yl)-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one;~~
3-(8-amino-1,1-dioxido-4,7-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl)-4-hydroxy-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one; and
4-hydroxy-3-[8-(hydroxymethyl)-1,1-dioxido-4,9-dihydroimidazo[4,5-h][1,2,4]benzothiadiazin-3-yl]-1-(3-methylbutyl)-1,8-naphthyridin-2(1H)-one.

57. (previously presented) A compound or a pharmaceutically acceptable salt form, stereoisomer, or tautomer thereof, wherein the compound is selected from the group consisting of:

N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl} methanesulfonamide;
N-[(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydroquinolin-3-yl}-1,1-dioxido-4H-thieno[2,3-e][1,2,4]thiadiazin-7-yl)methyl] methanesulfonamide;
N-(3-{1-[(cyclopropylmethyl)amino]-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl}-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl) methanesulfonamide;
N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl} sulfamide; and
N-{3-[1-(cyclobutylamino)-4-hydroxy-2-oxo-1,2-dihydro-3-quinolinyl]-1,1-dioxido-4H-1,2,4-benzothiadiazin-7-yl}-*N*-methylsulfamide.

58-61. (canceled)

62. (previously presented) A pharmaceutical composition comprising a therapeutically effective amount of one or more compounds, salts, stereoisomers, or tautomers recited in claim 57 and a pharmaceutically acceptable carrier.

63. (previously presented) The pharmaceutical composition of claim 62, wherein the composition further comprises one or more agents selected from the group consisting of a host immune modulator and a second antiviral agent.

64. (previously presented) The pharmaceutical composition of claim 63, wherein each of the one or more host immune modulators is selected from the group consisting of interferon-alpha, pegylated-

interferon-alpha, interferon-beta, interferon-gamma, a cytokine, and a vaccine optionally comprising an antigen and an adjuvant.

65. (previously presented) The pharmaceutical composition of claim **63**, wherein the second antiviral agent inhibits replication of HCV by inhibiting host cellular functions associated with viral replication.

66. (previously presented) The pharmaceutical composition of claim **63**, wherein the second antiviral agent inhibits the replication of HCV by targeting proteins of the viral genome.

67. (previously presented) The pharmaceutical composition of claim **62**, wherein the composition further comprises an agent or combination of agents that treat or alleviate symptoms of HCV infection.

68. (previously presented) The pharmaceutical composition of claim **62**, wherein the composition further comprises one or more agents that treat patients for disease caused by hepatitis B (HBV) infection.

69. (previously presented) The pharmaceutical composition of claim **68**, wherein each of the one or more agents that treat patients for disease caused by hepatitis B (HBV) infection is selected from the group consisting of L-deoxythymidine, adefovir, lamivudine, and tenofovir.

70. (previously presented) The pharmaceutical composition of claim **62**, wherein the composition further comprises one or more agents that treat patients for disease caused by human immunodeficiency virus (HIV) infection.

71. (previously presented) The pharmaceutical composition of claim **70**, wherein each of the one or more agents that treat patients for disease caused by human immunodeficiency virus (HIV) infection is selected from the group consisting of ritonavir, lopinavir, indinavir, nelfinavir, saquinavir, amprenavir, atazanavir, tipranavir, TMC-114, fosamprenavir, zidovudine, lamivudine, didanosine, stavudine, tenofovir, zalcitabine, abacavir, efavirenz, nevirapine, delavirdine, TMC-125, L-870812, S-1360, enfuvirtide (T-20), and T-1249.

72-73. (canceled)

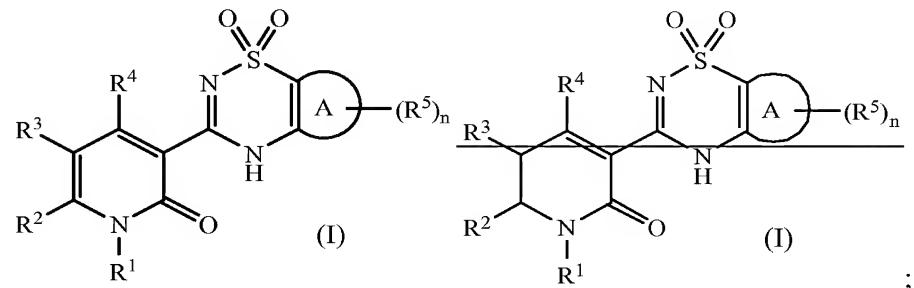
74. (previously presented) A method of treating an infection caused by a hepatitis C virus,

wherein the method comprises administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds, salts, stereoisomers, or tautomers recited in claim 57.

75-89. (canceled)

90. (currently amended) A compound, or a pharmaceutically acceptable salt, stereoisomer, or tautomer thereof, wherein:

the compound corresponds in structure to formula (I):



A is a monocyclic or bicyclic ring selected from the group consisting of aryl, cycloalkyl, cycloalkenyl, heteroaryl, and heterocycle;

R^1 is $R_aR_bN^-$;

R^2 and R^3 , together with the carbon atoms to which they are attached, form a five- or six-membered ring selected from the group consisting of aryl, cycloalkyl, heteroaryl, and heterocycles.

R^4 is selected from the group consisting of alkoxy, arylalkoxy, aryloxy, halo, hydroxy, R_aR_bN -, N_3 -, and R_cS -, wherein R^4 is substituted with 0, 1, or 2 substituents independently selected from the group consisting of halo, nitro, cyano, -OH, -NH₂, and -COOH;

R^5 is independently selected at each occurrence from the group consisting of alkenyl, alkoxy, alkyl, alkynyl, aryl, arylalkyl, arylcarbonyl, aryloxy, azidoalkyl, formyl, halo, haloalkyl, halocarbonyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, hydroxyalkyl, cycloalkyl, cyano, cyanoalkyl, nitro, R_aR_bN -, $R_aC(O)$ -, R_aS -, $R_a(O)S$ -, $R_a(O)_2S$ -, $R_aR_bNalkyl$ -, $R_a(O)SN(R_f)$ -, $R_aSO_2N(R_f)$ -, $R_a(O)SN(R_f)alkyl$ -, $R_aSO_2N(R_f)alkyl$ -, $R_aR_bNSO_2N(R_f)$ -, $R_aR_bNSO_2N(R_f)alkyl$ -, $R_aR_bNC(O)$ -, $R_kOC(O)$ -, $R_kOC(O)alkyl$ -, $R_kOalkyl$ -, $R_aR_bNSO_2$ -, $R_aR_bNSO_2alkyl$ -, $(R_bO)(R_a)P(O)O$ - and $-OR_k$, wherein each R^5 is independently substituted with 0, 1, 2 or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, $-(alkyl)(OR_c)$, $-(alkyl)(NR_cR_d)$, $-SR_c$, $-S(O)R_c$, $-S(O)_2R_c$, $-OR_c$, $-N(R_c)(R_d)$, $-C(O)R_c$, $-C(O)OR_c$ and $-C(O)NR_cR_d$;

R_a and R_b , at each occurrence, are independently selected from the group consisting of hydrogen,

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alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, and nitroalkyl;

R_c and R_d , at each occurrence, are independently selected from the group consisting of hydrogen, $-NR_fR_h$, $-OR_f$, $-CO(R_f)$, $-SR_f$, $-SOR_f$, $-SO_2R_f$, $-C(O)NR_fR_h$, $-SO_2NR_fR_h$, $-C(O)OR_f$, alkenyl, alkyl, alkynyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, aryl, arylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, and heterocycloalkyl, wherein each R_c and R_d is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, $-(alkyl)(OR_f)$, $-(alkyl)(NR_fR_h)$, $-SR_f$, $-S(O)R_f$, $-S(O)_2R_f$, $-OR_f$, $-N(R_f)(R_h)$, $-C(O)R_f$, $-C(O)OR_f$, $-C(O)NR_fR_h$, $-C(O)N(H)NR_fR_h$, $-N(R_e)C(O)OR_f$, $-N(R_e)SO_2NR_fR_h$, $-N(R_e)C(O)NR_fR_h$, $-alkylN(R_e)C(O)OR_f$, $-alkylN(R_e)SO_2NR_fR_h$, and $-alkylN(R_e)C(O)NR_fR_h$;

alternatively, R_c and R_d , together with the nitrogen atom to which they are attached, form a three- to six-membered ring selected from the group consisting of heteroaryl and heterocycle, wherein the heteroaryl and heterocycle are independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, $-(alkyl)(OR_f)$, $-(alkyl)(NR_fR_h)$, $-SR_f$, $-S(O)R_f$, $-S(O)_2R_f$, $-OR_f$, $-N(R_f)(R_h)$, $-C(O)R_f$, $-C(O)OR_f$, and $-C(O)NR_fR_h$;

R_e is selected from the group consisting of hydrogen, alkenyl, alkyl, and cycloalkyl;

R_f and R_h , at each occurrence, are independently selected from the group consisting of hydrogen, alkyl, alkenyl, aryl, arylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkenyl, cycloalkenylalkyl, heterocycle, heterocyclealkyl, heteroaryl, and heteroarylalkyl, wherein each R_f , R_g , and R_h is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl, cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, $-OH$, $-O(alkyl)$, $-NH_2$, $-N(H)(alkyl)$, $-N(alkyl)_2$, $-S(alkyl)$, $-S(O)(alkyl)$, $-SO_2alkyl$, $-alkyl-OH$, $-alkyl-O-alkyl$, $-alkylNH_2$, $-alkylN(H)(alkyl)$, $-alkylN(alkyl)_2$, $-alkylS(alkyl)$, $-alkylS(O)(alkyl)$, $-alkylSO_2alkyl$, $-N(H)C(O)NH_2$, $-C(O)OH$, $-C(O)O(alkyl)$, $-C(O)alkyl$, $-C(O)NH_2$, $-C(O)NH_2$, $-C(O)N(H)(alkyl)$, and $-C(O)N(alkyl)_2$;

alternatively, R_f and R_h , together with the nitrogen atom to which they are attached, form a three- to seven-membered ring selected from the group consisting of heterocycle and heteroaryl, wherein each of the heterocycle and heteroaryl is independently substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, cyano, halo, oxo, nitro, aryl, arylalkyl,

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cycloalkyl, cycloalkenyl, heterocycle, heteroaryl, heteroarylalkyl, -OH, -O(alkyl), -NH₂, -N(H)(alkyl), -N(alkyl)₂, -S(alkyl), -S(alkyl), -S(O)(alkyl), -alkyl-OH, -alkyl-O-alkyl, -alkylNH₂, -alkylN(H)(alkyl), -alkylS(alkyl), -alkylS(O)(alkyl), -alkylSO₂alkyl, -alkylN(alkyl)₂, -N(H)C(O)NH₂, -C(O)OH, -C(O)O(alkyl), -C(O)alkyl, -C(O)NH₂, -C(O)N(H)(alkyl), and -C(O)N(alkyl)₂;

R_k is selected from the group consisting of hydrogen, alkenyl, alkyl, aryl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cycloalkylalkyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkyl, heterocycle, heterocyclealkyl, nitroalkyl, R_aR_bNalkyl-, R_aOalkyl-, R_aR_bNC(O)-, R_aR_bNC(O)alkyl, R_aS-, R_aS(O)-, R_aSO₂-, R_aSalkyl-, R_a(O)Salkyl-, R_aSO₂alkyl-, R_aOC(O)-, R_aOC(O)alkyl-, R_aC(O)-, and R_aC(O)alkyl-, wherein each R_k is substituted with 0, 1, 2, or 3 substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, oxo, halo, cyano, nitro, haloalkyl, haloalkoxy, aryl, heteroaryl, heterocycle, arylalkyl, heteroarylalkyl, alkoxyalkoxyalkyl, -(alkyl)(OR_c), -(alkyl)(NR_cR_d), -SR_c, -S(O)R_c, -S(O)₂R_c, -OR_c, -N(R_c)(R_d), -C(O)R_c, -C(O)OR_c and -C(O)NR_cR_d; and

n is 0, 1, 2, 3, or 4.

91. (previously presented) The compound, salt, stereoisomer, or tautomer of claim 52, wherein:

R⁵ is R_aSO₂N(R_f)alkyl-, and

R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, and nitroalkyl.

92. (previously presented) The compound, salt, stereoisomer, or tautomer of claim 52, wherein:

R¹ is R_aR_bN-, and

R_a and R_b, at each occurrence, are independently selected from the group consisting of hydrogen, alkenyl, alkyl, alkylsulfanylalkyl, aryl, arylalkenyl, arylalkyl, cyanoalkyl, cycloalkenyl, cycloalkenylalkyl, cycloalkyl, cycloalkylalkyl, cycloalkylalkenyl, formylalkyl, haloalkyl, heteroaryl, heteroarylalkenyl, heteroarylalkyl, heterocycle, heterocyclealkenyl, heterocyclealkyl, hydroxyalkylcarbonyl, and nitroalkyl.

93-95. (canceled)

96. (previously presented) A method of treating an infection caused by a hepatitis C virus, wherein the method comprises administering to a patient in need of such treatment a therapeutically

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effective amount of one or more compounds, salts, stereoisomers, or tautomers recited in claim **52**.

97. (previously presented) A method of treating an infection caused by a hepatitis C virus, wherein the method comprises administering to a patient in need of such treatment a therapeutically effective amount of one or more compounds, salts, stereoisomers, or tautomers recited in claim **90**.